

State of California
Regional Water Quality Control Board
North Coast Region

Joan Fleck
June 12, 2003

EXECUTIVE OFFICER'S SUMMARY REPORT
9:00 a.m. June 26, 2003
North Coast Regional Water Board
Hearing Room
5550 Skylane Boulevard, Suite A
Santa Rosa, California

ITEM: 10

SUBJECT: PUBLIC HEARING: Order No. R1-2003-0075 to consider whether to affirm, reject, or modify a Complaint for Administrative Civil Liability served on March 21, 2003, and/or take other enforcement action in the Matter of Carl Boyett, Carol Boyett and Boyett Petroleum, 171 Santa Rosa Avenue, Santa Rosa, Sonoma County.

DISCUSSION

The purpose of this hearing is to consider testimony regarding Administrative Civil Liability Complaint No. R1-2003-0023 issued to Carl Boyett, Carol Boyett and Boyett Petroleum (hereinafter collectively referred to as the Dischargers) for 171 Santa Rosa Avenue (hereinafter Site). The Site, shown in **Attachment A**, was occupied by Santa Rosa Oil and Burner Company prior to 1954; a gasoline station from 1954 to 1992; and currently is a vacant lot owned by Carl and Carol Boyett.

An unauthorized release was first documented in 1985 when gasoline was discovered seeping into Santa Rosa Creek from cracks in the concrete channel. The discharge was determined to be serious due to the presence of floating product on groundwater, at up to eight feet in thickness, in the dispenser area of the gasoline station. A significant loss of petroleum fuel product had occurred at the Site causing an immediate impact to Santa Rosa Creek. Subsurface investigative work revealed evidence of a second release in 1987, equally significant, and the offsite migration of a dissolved gasoline plume beneath the Pacific Gas & Electric Company substation property to the west of the Site, adjacent to Santa Rosa Creek.

Regional Water Board staff (staff) has been working with the Dischargers regarding site remediation, ground and surface water protection, and compliance matters for 18 years. Four enforcement orders have been issued: three cleanup and abatement orders and Time Schedule Order (TSO) No. 98-114 (**Attachment B**) adopted by the Regional Water Board in October 1998. The TSO was issued due to the threat of non-compliance.

Since 1985, staff has experienced profound difficulty in persuading the Dischargers to comply with directives. Delays have occurred, and the Dischargers have submitted inaccurate and incomplete

technical documentation concerning site remediation activities, and incomplete corrective action plans. Time Schedule Order No. 98-114 ordered the submittal of an acceptable corrective action plan (CAP) by October 21, 2001. A document identified as a CAP was submitted and was not acceptable. The Dischargers were provided with two additional opportunities to rectify the deficiencies in the CAP and gain compliance status with the TSO. The Dischargers failed to submit an acceptable CAP.

Investigative work conducted in September 2002 beneath and behind the creek channel has revealed an ongoing discharge of gasoline into Santa Rosa Creek, approximately 18 years after the initial discovery.

On January 31, 2003, Administrative Civil Liability Complaint (ACLC) No. R1-2003-0023 was issued (**Attachment C**). On March 21, 2003, the Executive Officer re-served the Complaint. The maximum amount of civil liability is \$1,305,000.00. The Executive Officer proposes that the Dischargers collectively pay \$100,000.00 now and that the remaining \$1,205,000.00 of the administrative civil liability be permanently suspended contingent upon compliance with Time Schedule Order No. 98-114, Tasks H, I and K. Attachment C contains details regarding Time Schedule Order No. 98-114 requirements and compliance schedule. A more detailed discussion regarding case history is contained in the attached Staff Report.

Attachment D – Tentative Administrative Civil Liability Order No. R1-2003-0075

Attachement E – Notice of Evidentiary Hearing

PRELIMINARY STAFF

RECOMMENDATION:

Consider all testimony regarding Administrative Civil Liability Complaint No. R1-2003-0023 and determine whether to affirm, reject or modify the Complaint by issuing Order No. R1-2003-0075.

Staff Report

This report describes issues related to the discharge of petroleum hydrocarbons from an underground storage tank system to soil, groundwater, and Santa Rosa Creek at 171 Santa Rosa Avenue in Santa Rosa. The Site was a Boyett Petroleum retail gasoline station and car wash and currently is a vacant lot. The Site is bordered on the north by Santa Rosa Creek, on the east by Santa Rosa Avenue, on the south by Sonoma Avenue and on the west by a Pacific Gas and Electric (PG&E) substation. The property is currently owned by Carl and Carol Boyett.

In January 1985, Regional Water Board staff (staff) received a complaint of gasoline seeping into Santa Rosa Creek through cracks in the concrete channel lining. The Dischargers immediately installed six groundwater monitoring wells and proposed to install a groundwater extraction system. In May 1985 four additional wells were installed. On the date of drilling, free product on groundwater was encountered in the bore-hole for MW-7 and was reported at approximately four inches in thickness. The product was described as dark brown and was found in the dispenser area. On May 15, 1985, free product was measured at 8.23 feet in thickness in MW-7 indicating a significant loss of fuel. The product was again described as dark brown, which indicated an older release. On May 21, 1985, the Executive Officer issued Cleanup and Abatement Order (CAO) No. 85-86 ordering Boyett Petroleum to:

1. Cease immediately the discharge of gasoline to waters of the State.
2. On or before May 31, 1985, commence a program to determine the extent of contamination and cleanup the effects of the discharge.
3. Beginning June 1, 1985, submit monthly reports to the Regional Board that explain in detail actions taken to comply with Provision 2 above. Report submittal shall continue until such time as cleanup is complete.
4. Sample and analyze the discharge and affected waters of the State as deemed necessary and upon specific instructions by the Executive Officer.

Regional Water Board staff concurred with the proposal to install the extraction system and requested a work plan because the existing groundwater monitoring well network was not sufficient to define the extent of contamination. A work plan and the monthly reports were not submitted. In July 1985, staff requested a status report. Mr. Boyett informed Regional Water Board staff that system installation was dependent upon payment from the insurance carrier.

1986

Regional Water Board records show no investigative or cleanup activity in 1986.

1987

In January 1987, staff notified the Dischargers by letter of the need to resume cleanup and define the extent of contamination. Staff notified the Dischargers in another letter dated January 30, 1987, that a work plan was due by February 11, 1987, or administrative civil liabilities would be considered. In May 1987, free product was measured on groundwater in the dispenser area at 1.59 feet in thickness and was described as clear gasoline indicating a new release. In July, the free product was measured at up to 5.83 feet in thickness also described as clear gasoline. Product or sheen was also reported in other wells.

Two additional groundwater-monitoring wells were installed. However, the extent of contamination to the west remained undefined. Staff notified the Dischargers by phone in October 1987 that the delays in conducting the investigation were not acceptable. In November 1987, staff inspected the Site and reported gasoline still seeping into Santa Rosa Creek. The Dischargers were notified again by letter dated November 17, 1987, of the need to define the extent of contamination as ordered in Cleanup and Abatement Order No. 85-86.

1988

In 1988, an extraction system, consisting of one well, was installed. In December 1988, staff again notified the Dischargers of the need to define the extent of contamination. Staff also requested a pump test to determine if the installation of one extraction well was sufficient to abate the discharge.

1989-1990

In 1989 the Dischargers obtained the necessary permits and in July, began operation of an extraction system. The system operated through 1990 and floating product continued to be measured in on-site wells at over four-inches in thickness. In May and July 1989 staff made additional requests for a work plan to define the extent of contamination.

1991

In June 1991, the Dischargers expressed dissatisfaction with the groundwater extraction system due to the continued presence of free product. Staff informed the Dischargers that it was not appropriate to discontinue system operation and it would be more appropriate to combine groundwater extraction with another technology. Staff also informed the Dischargers that since there was an operating underground storage tank system at the site, there could be an ongoing discharge and a continual source of product. Without source abatement/removal, the continued operation of the groundwater extraction system was not cost effective. The Dischargers' position was the tanks were not leaking.

1992

In January 1992, the Dischargers again expressed dissatisfaction with the groundwater extraction system and staff again communicated the potential for an ongoing release from the continued operation of the underground storage tank system. The Dischargers retained new consultants and in August 1992, the underground storage tank system and a limited amount of soil in the vicinity of the tanks were removed. Impacted soil in the vicinity of the fuel dispenser area was not removed. In September 1992, soil borings were drilled on site to define the extent of soil impact.

Free product was discovered in soil in the area of the fuel dispensers and total petroleum hydrocarbons as gasoline were detected at up to 27,000 parts per million (ppm).

1993

In July 1993, a work plan was submitted for the installation of three soil vapor extraction (SVE) test wells to conduct a SVE pilot test. The proposed scope of work also included the removal of free product using a vacuum truck. In September, the SVE pilot test report was submitted and reported the installation of three SVE wells. The consultant reported favorable results and determined SVE to be an effective treatment method for the site. The report included a proposal to install twelve additional SVE wells on a 22-foot grid pattern.

1994

In January 1994, staff contacted the consultant and requested a report on the status of the remediation. According to the consultant, they had just received the permits from the City of Santa Rosa to install the above-ground system components. On February 24, 1994, staff received notification that the system had been installed and staff would receive a 48-hour notification prior to system start up. Notification was not received.

Two quarterly reports were submitted, one each in April and August 1994, with no mention of the system installation or operation. In November 1994, staff again requested a status report. Staff was informed that the system was not operating due to vandalism and the system would be secured and restarted in December 1994.

1995

In January 1995 a quarterly report was submitted with no mention of system start-up. In February 1995, staff conducted a site inspection and found no signs of an operating system. On March 2, 1995, staff notified the Dischargers by letter of: (1) document submittal inadequacies; (2) an inquiry as to reasons why free product removal had not been conducted as proposed, and (3) emphasized the need to maintain hydraulic control to eliminate the threat to Santa Rosa Creek. In June, representatives of the Santa Rosa Fire Department inspected the site and noted several deficiencies with regards to hazardous waste storage and lack of site security and site upkeep. In June, staff requested documentation regarding SVE system effectiveness including the total number of pounds of petroleum hydrocarbons removed. In September 1995, a status report was submitted that indicated that the system ceased operation in May 1995. However, information regarding SVE system installation, operation and effectiveness was not provided.

1996

In 1996, the Dischargers' consultant alleged that the soil vapor extraction system was ineffective due to the on-site migration of petroleum hydrocarbons from the nearby Clark's Auto Parts site at 203 Santa Rosa Avenue. In July and August, 1996, staff met with Carl Boyett and the City of Santa Rosa. Staff acknowledged the presence of an up gradient site (discussed further below). However, the Dischargers' on-site source (significantly impacted soil and product) had not been addressed and documentation regarding the operation of the SVE system was not provided. It was agreed that a work plan to conduct excavation would be submitted. The City indicated that they were interested in purchasing the site and developing the property into a park and entrance to the Prince Memorial Greenway Project (PMGP).

The PMGP project is a creek restoration and linear park project that includes enhancing creek access, providing recreation opportunities, conserving and restoring natural habitats, enhancing aesthetic values, providing educational opportunities, maintaining hydraulic capacity, and establishing alternative transportation modes including pedestrian and bicycle pathways. The PMGP generally includes the removal of the concrete floor and walls and restoration of natural plant and animal habitats. The Regional Water Board issued the City of Santa Rosa Waste Discharge Requirements (WDRs) No. R1-2000-05 for the construction of the PMGP.

In September 1996, staff contacted the Dischargers' consultant to inquire on the status of the work plan. In October 1996, staff contacted the Dischargers to inquire on the status of the work plan. Responses were not provided. Staff notified the Dischargers that due to the ongoing delays, a cleanup and abatement order would be prepared.

1997

In August 1997, after a one-year delay, a work plan was submitted to conduct limited excavation in the vicinity of the former dispenser area. The work plan was not acceptable due to its limited scope and the lack of detail. Staff provided the Dischargers with a letter on September 25, 1997, identifying the work plan deficiencies, which included the failure to identify sampling methods and locations, map discrepancies and unacceptable cleanup levels.

In October 1997, Cleanup and Abatement Order No. 97-120 was issued to Carl Boyett, Carol Boyett and Boyett Petroleum ordering the Dischargers to complete the following:

- By December 1, 1997, submit a revised and acceptable excavation work plan.
- By January 2, 1998, obtain all necessary permits to implement the plan.
- Begin implementation of the work within fifteen days of the Executive Officer's acceptance of the plan. Complete all work within 45 days after work is commenced.
- Submit a report of completed work within 30 days after completion of the work.
- Conduct quarterly verification monitoring, sampling and reporting for all site-related wells.
- Continue monitoring and sampling and any additional work deemed necessary by the Executive Officer.

The Dischargers retained a different consultant. An acceptable plan was submitted in compliance with the Order to conduct excavation of impacted soil and extract groundwater from the open excavation. It was proposed that the excavation work be coordinated with the City of Santa Rosa PMGP construction schedule. Therefore, extensions for the ordered compliance dates were granted to allow for the coordination of the cleanup with the PMGP.

1998

In June 1998, the City of Santa Rosa notified staff of its intent to discontinue coordination of the PMGP with the Dischargers' soil and groundwater remediation project. Therefore, the soil and groundwater remediation project would proceed independently and the time extensions for the Dischargers to complete the CAO No. 97-120 tasks were no longer appropriate.

On July 6, 1998, CAO No. 97-120 was rescinded and CAO No. 98-75 was issued. The Dischargers were ordered to complete the following work:

- By July 17, 1998, submit a revised corrective action plan (CAP).
- By July 31, 1998, obtain all necessary permits to implement that plan.
- Implement the plan within 15 days of obtaining the permits and completion of the work within 45 days of implementation.
- Conduct quarterly groundwater monitoring, sampling and reporting for all site-related monitoring wells.
- Continue to conduct groundwater monitoring, sampling and reporting and any additional work deemed necessary by the Executive Officer until the threat to Santa Rosa Creek has been eliminated and the beneficial uses of the State's water have been restored.

On July 9, 1998, the attorney for the Dischargers requested a 30-day extension for the submittal of a revised corrective action plan. On July 14, 1998, the Executive Officer granted an extension to August 14, 1998, and indicated that no additional extensions would be granted.

On August 5, 1998, the Dischargers submitted a document that provided a site history, discussed potential cleanup alternatives and included a schedule that proposed the submittal of a draft CAP on August 28, 1998, and a final CAP on September 11, 1998. On August 21, 1998, staff informed the Dischargers by letter that the document did not constitute a CAP or compliance with the August 14, 1998, compliance date required by CAO No. 98-75 and informed them that a public hearing would be scheduled for additional enforcement. The enforcement included the consideration of administrative civil liability for non-compliance with Cleanup and Abatement Order No. 98-75, the issuance of a Section 13308 Time Schedule Order (TSO) due to the threat of future non-compliance, and/or referral to the Attorney General.

On August 28, 1998, the "Revised Corrective Action plan" was submitted. On August 21, 1998, staff notified the Dischargers by letter that the plan was not acceptable because:

- The submittal identified interim groundwater cleanup levels. Interim cleanup levels were not acceptable since an interim plan was not requested. CAO No. 98-75 ordered the submittal of a final corrective action plan.
- The proposed scope of work did not address the off-site migration of contamination to the west and behind the concrete lining of Santa Rosa Creek.
- The proposed scope of work included the injection of an oxygenating agent to enhance bioremediation and was identified as an interim/final remediation method. CAO No. 98-75 ordered the submittal of a final CAP.

A hearing was scheduled before the North Coast Regional Water Quality Control Board for October 22, 1998. Prior to the hearing, the Dischargers offered to not contest the TSO provided the Order include a compliance schedule proposed by the Dischargers and that the administrative civil liability and other enforcement actions not be pursued at that time.

The proposed compliance schedule included the completion of on- and off-site cleanup work separately. Staff concurred with the compliance schedule and revised the proposed TSO. At the October 22, 1998, Regional Water Board Hearing, the Regional Water Board adopted TSO No. 98-114 (**Attachment B**).

1998 - 2001

Between October 1998 and the summer of 2001, staff continued to work with the Dischargers towards compliance. On-site work included the removal of impacted soil, the discovery and removal of two additional underground storage tanks and the injection of an oxygenating agent into groundwater to enhance bioremediation.

In September 1999, the off-site CAP was submitted, which evaluated four potential groundwater remediation alternatives. They included (1) ORC injections, (2) dual-phase extraction, (3) the installation of an extraction trench, and (4) ongoing groundwater sampling and reporting. The document also indicated that other cleanup alternatives would be considered that could be implemented concurrently with the City of Santa Rosa Prince Memorial Greenway Project. However, a commitment to do so was not provided. The cleanup alternative selected by the consultant was groundwater sampling and reporting as the cleanup method.

On December 3, 1999, staff notified the Dischargers by letter that monitoring and reporting is a means to evaluate the need for cleanup and is not by itself a cleanup alternative. Therefore the CAP was not acceptable.

In the meantime, Task C, which ordered the re-evaluation and necessity to revise the on-site CAP, was ongoing. Revisions of the onsite CAP were predicated on groundwater analytical results of quarterly sampling. High concentrations of petroleum hydrocarbons continued to be detected in groundwater beneath the site and adjacent properties. That information was evidence under Task C to compel the Dischargers to submit a revised on-site CAP. Ultimately, in August 2001, a revised compliance schedule was established.

On August 3, 2001, the Regional Water Board Executive Officer notified the Dischargers of the status of TSO No. 98-114 and the revised compliance dates for Tasks H, I and K. The Executive Officer also required that the revised CAP address on and off-site impacts. The compliance dates for Tasks H, I, and K were revised as follows:

Task	Due Date	Penalty Assessment Date	Civil Penalty
H. Submit an acceptable CAP for on and off site impacts	October 15, 2001	October 16, 2001	\$10,000
I. Implement the CAP	November 15, 2001	November 16, 2001	\$10,000
K. Submit a report of findings	January 15, 2002	January 16, 2002	\$5,000

In addition, Time Schedule Order No. 98-114 specifies: "If there are violations beyond the dates specified above, the discharger is liable for \$1,000 for each additional day in which the violation occurs. In no case will the discharger be liable for more than \$10,000 for any single day."

Violations of Time Schedule Order No. 98-114

On October 15, 2001, a document entitled “Revised Offsite Corrective Action Plan” and dated October 12, 2001, was submitted. On January 8, 2002, Regional Water Board staff verbally informed the Dischargers’ legal counsel that this CAP was not acceptable. On February 25, 2002, Regional Water Board staff provided Boyett with written comments that pointed out the inadequacies in the CAP; the feasibility study was incomplete because it did not:

- Identify the total number of ORC slurry injections needed to restore or protect ground and surface water quality.
- Provide an estimate regarding the timeframe to project completion. Since this was not provided, the recommended remedy could not be evaluated with regards to the timely protection of ground and surface water.
- The total costs of at least two technically feasible final corrective action alternatives were not compared.
- The feasibility study, therefore, did not demonstrate the technical feasibility and cost effectiveness of the recommended remedy.

The February 26, 2002, letter provided the Dischargers with an additional 30 days to submit an acceptable plan. An acceptable CAP was therefore due no later than March 28, 2002.

On March 27, 2002, a document entitled “Revised Corrective Action Plan” dated March 25, 2002, was submitted. The proposed scope of work was the same as had been proposed in the October 12, 2001, CAP and the CAP was therefore deficient. Regional Water Board staff verbally notified the Dischargers’ legal counsel that the CAP was not acceptable because it did not rectify the shortcomings of the October 12, 2001, CAP. The Dischargers’ legal counsel indicated that the Regional Water Board should not have received the March 27, 2002, CAP, but instead another document entitled the “ultimate cleanup plan,” and that he would submit a copy.

On July 1, 2002, a document entitled “Ultimate Remedial Alternatives” and dated April 3, 2002, was submitted. The plan described in the document did not adequately address problems previously pointed out to the Dischargers. In particular, the plan did not include an acceptable method to address the off-site impacts of ongoing discharges and was not prepared according to the requirements of California Code of Regulations (Title 23, Division 3, Chapter 16, Article 11).

Cleanup alternatives were only considered that could reach water quality objectives within one year with a minimum of ongoing operation and maintenance and with the understanding that the ultimate plan would form the basis for discussions with the City of Santa Rosa regarding property acquisition.

The “ultimate cleanup plan” dismissed the use of ORC slurry injections (which was the recommended remedy in the revised CAPs submitted previously) because multiple injections would be necessary and the cleanup would not be timely. The recommended remedy was the injection of hydrogen peroxide. Accordingly, the Regional Water Board staff concluded that the Ultimate Remedial Alternatives document did not constitute an adequate CAP.

The presence of impacted soil and groundwater adjacent to Santa Rosa Creek and the lack of effective and timely remediation is also impacting the City of Santa Rosa Prince Memorial Greenway Project. On September 30, 2002 Regional Water Board staff and City of Santa Rosa representatives observed obvious signs of discharges from the Site, including gasoline odors, stained soil, and a petroleum sheen on water immediately under the concrete lining of the floor of Santa Rosa Creek. The work was conducted to evaluate PMGP design, scheduling and cost considerations, including the potential for violations of WDRs No. R1-2000-05 to occur due to the presence of the contamination. The analytical results of water samples confirmed an ongoing discharge of gasoline and gasoline constituents from the Site to Santa Rosa Creek. Therefore, the removal of the concrete south wall and floor by the City of Santa Rosa and/or their contractors would result in a violation of WDRs R1-2000-05.

On October 16, 2002, Regional Water Board staff met with Mr. Carl Boyett and informed him of the ongoing discharge to Santa Rosa Creek and the violations of Time Schedule Order No. 98-114. The Dischargers' attorney presented the "ultimate cleanup plan" previously submitted on July 1, 2002, for discussion, proposed that the City of Santa Rosa and the Regional Water Board decide who would be lead agency for the cleanup project, and that all should work together and prepare a plan. Staff explained to Mr. Boyett and his counsel that the Dischargers are responsible for the plan and compliance with TSO No. 98-114. Staff also identified the deficiencies in the "ultimate cleanup plan." Finally, staff informed Mr. Boyett that the ongoing discharge and lack of corrective action is causing adverse impacts on Santa Rosa Creek and is adversely affecting the design, construction, schedule and costs of the PMGP.

On November 21, 2002, staff again met with Mr. Boyett and reiterated that a revised CAP was overdue. Staff again stated that the revised CAP must include a method to abate the discharge to Santa Rosa Creek, address remaining sources of contamination, and remediate the on- and off-site dissolved contaminant plume.

On December 4, 2002, a document entitled "Remedial Opportunities During Construction of the Prince Memorial Greenway Project" was submitted, presumably to cure defects in the prior proposed CAPs. The proposal included a scope of work to conduct additional subsurface investigative work along Santa Rosa Creek to evaluate the installation of a cut-off wall and groundwater extraction system to abate the ongoing discharge to Santa Rosa Creek. The proposal also included the removal of impacted soil during the construction of the PMGP. However, this document did not address the problems with the prior CAPs called to the Dischargers' attention by staff and does not satisfy the TSO No. 98-114 requirement for the submittal of an acceptable CAP. Specifically, it does not include an assessment of the impacts, a feasibility study to evaluate alternatives for remedying or mitigating the actual or potential adverse effects of the unauthorized release, nor evaluate their cost effectiveness.

On January 31, 2003, the Executive Officer issued Administrative Civil Liability Complaint No. R1-2003-0023 for violations of TSO No. 98-114. The proposed Administrative Civil Liability is \$1,305,000.00. The Executive Officer proposed that the Dischargers collectively pay \$100,000.00 of the total Administrative Civil Liability immediately and the remaining \$1,205,000.00 of the Administrative Civil Liability would be permanently suspended contingent upon compliance with Time Schedule Order No. 98-114 according to a specified schedule identified in ACLC No. R1-2003-0023 (**Attachment C**). The Complaint was later re-served on March 21, 2003.

On February 28, 2003, the “Draft 2003 Corrective Action Plan” was submitted on behalf of the Dischargers prior to the compliance date of March 1, 2003, established by the schedule contained in the Complaint. The CAP is conceptually acceptable, but some additional information is required. As a result, the time schedule in the Administrative Civil Liability Order (**Attachment D**) requires the submittal of a final corrective action plan.

On February 28, 2003, the Dischargers’ attorney requested a “hearing concerning Civil Liability Complaint No. R1-2003-0023 for the purpose of contesting the allegations made and against the imposition of or the amount of civil liability proposed or alleged and hereby deny each and every allegation set forth therein.”

Status of Other Sources of Contamination

Other sources of groundwater contamination in the general area include the Clark's Auto Parts at 203 Santa Rosa Avenue, Empire Cleaners at 526 Sonoma Avenue, and Pacific Gas & Electric Company/Musco at First and B Streets. The site locations are shown on **Attachment E**.

- The Clark’s Auto Parts site is a former gasoline station located immediately south of the Boyett Site. A gasoline release occurred from the former underground storage tank system. Subsurface investigative work shows the presence of free product on the water and a dissolved plume. Regional Water Board staff acknowledge some degree of commingling with the Boyett plume.

Enforcement action has not been taken against the responsible party, Mrs. Anita Clark, because she has complied with Regional Water Board staff requests. On October 9, 2002, Ms. Clark submitted the October 2002 “Corrective Action Plan.” The document included the evaluation of potential remedial alternatives including dual-phase (groundwater and vapor) extraction. Prior to the selection of a final remedy, pilot tests were proposed to evaluate liquid and vapor extraction technologies combined with additional investigative/interim work to address the presence of free product on groundwater. The pilot test was completed and the results show that dual-phase extraction is technically feasible. However, the test results also show that extraction will likely exacerbate the migration of the Empire Cleaners dry cleaning solvent plume to the east. At this time, an ozone sparge pilot test is being considered. Once completed, the results of the pilot tests and the feasibility study component of the CAP will be completed and submitted in a final CAP including the selected remedy. Implementation of a treatment system will eliminate the source of onsite migration beneath the Boyett Site.

- The Empire Cleaners is a dry cleaning facility at 526 Sonoma Avenue. A tetrachloroethylene (PCE) release occurred from the dry cleaning facility during the former operator’s tenancy. PCE and its breakdown products are present in groundwater beneath Sonoma Avenue and adjacent to Santa Rosa Creek with some degree of commingling with the Boyett petroleum plume. A work plan has been submitted to the Regional Water Board to define the extent of contamination and on November 28, 2001, staff concurred with the proposed scope of work. The work plan has not been implemented. The responsible parties are aggressively pursuing insurance coverage for environmental damage. Staff has prepared a cleanup and abatement order directing Empire Cleaners to move forward with the investigation.

- The Pacific Gas & Electric Company/Musco (PG&E) site is located north of the Boyett Site on the opposite side of Santa Rosa Creek. Groundwater contaminants include oil product floating on groundwater, heavy hydrocarbons such as diesel and oil, and polynuclear aromatic hydrocarbons (PAHs) from gas manufacturing process waste (known as “lampblack”). The September 30, 2002, work conducted by the City of Santa Rosa also documented an ongoing discharge to Santa Rosa Creek from this site in addition to the Boyett site. Therefore, heavy hydrocarbons and PAHs from the PG&E site are commingling with the Dischargers’ gasoline in the water beneath the concrete floor of Santa Rosa Creek.

This case has a history of enforcement action and is currently regulated by Cleanup and Abatement Order No. No. R1-2002-0015. The responsible parties are in non-compliance status and Administrative Civil Liability Complaint No. R1-2003-0072 was issued on June 4, 2003.

The discharges from these sites do not interfere with the Dischargers’ ability to submit an acceptable CAP or conduct corrective action. The cumulative discharges and ongoing impact on Santa Rosa Creek emphasize the need for responsibility, accountability, and a timely cleanup at each site for the protection of ground and surface waters. In addition, the economic impacts of delays and the ongoing discharges to Santa Rosa Creek are affecting the City of Santa Rosa. As previously stated, the lack of cleanup and abatement impacts the PMGP design, construction schedule and costs.

In addition, on March 28, 2003, staff was notified by the City of Santa Rosa that the concrete floor of Santa Rosa Creek in the vicinity of the Boyett and the former PG&E sites, has been undermined and scoured allowing the impacted water to co-mingle with the channelized flow. This increases the potential exposure of contamination to humans, avian and aquatic life, particularly as the creek flow subsides.

The undermined areas are large and require repair coordinated with the United States Army Corps of Engineers, the California Department of Fish and Game, National Marine Fisheries, Sonoma County Water Agency, City of Santa Rosa, their contractor and the Regional Water Board. To facilitate the repair, the water will need to be diverted/re-routed with potential impacts to fish migration within the waterway. The timing of the repair is crucial due to the current rate of downstream fish migration. When the flow subsides, the volume of water may no longer sufficiently dilute the toxins and the lack of repair may become a limiting factor for fish survival in that area. At this time, the timing and the costs of the repair work are unknown.

In recent years there have been extensive efforts by public agencies to restore the habitat of Santa Rosa Creek. This work has been followed by signs that the salmon population of Santa Rosa Creek is making a comeback. Most recently, in November 2002 Chinook Salmon were documented in Santa Rosa Creek for the first time in recent history.

Conclusion

Regional Water Board staff have been working with the Dischargers for roughly 18 years concerning the release of gasoline from their site to soil, groundwater, and Santa Rosa Creek. The discharge was significant as evidenced by the historical presence of gasoline on groundwater in a monitoring well at greater than eight feet in thickness, off site migration, and the ongoing discharge to Santa Rosa Creek.

This case has a history of enforcement including three Cleanup and Abatement Orders and a Time Schedule Order due to the threat of non-compliance. Since 1985, little progress has been made due to delays, inaccurate and incomplete technical documentation concerning site remediation activities, and incomplete corrective action plans.

Time Schedule Order No. 98-114 ordered the submittal of an acceptable corrective action plan by October 21, 2001. An acceptable CAP was not submitted.

The Dischargers were asked two additional times to rectify the deficiencies in the CAP. Before issuance of the Complaint, the Dischargers had not submitted an acceptable CAP. The imposition of administrative civil liability as requested by the Complaint will address past non-compliance, deter future violations, and ensure that appropriate remediation will occur.